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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,478	07/30/2003	Patricio Nilo	1065.43	9198
7590 11/29/2005				
MELVIN K. SILVERMAN & ASSOC., P.C.				
SUITE 500				
500 WEST CYPRESS CREEK ROAD				
FORT LAUDERDALE, FL 33309				
		EXAMINER		
		WILSON, JOHN J		
		ART UNIT PAPER NUMBER		
		3732		

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Ten

<b>Interview Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/630,478	NILO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	John J. Wilson	3732	

All participants (applicant, applicant's representative, PTO personnel):

- (1) John J. Wilson. (3) \_\_\_\_\_  
(2) Yi Li. (4) \_\_\_\_\_

Date of Interview: 23 November 2005.

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.  
If Yes, brief description: \_\_\_\_\_

Claim(s) discussed: 1, 12 and 21.

Identification of prior art discussed: Porter et al, Lorenzi.

Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.


Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

### ATTACHMENTS

☒ Proposed Claims

  
John J. Wilson  
Primary Examiner

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

#### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The proposed claims, see attachment, were discussed. It was pointed out that Porter was for compression of threads not expansion of hole. Lorenze at the last step cuts and does not compress. In Porter the narrower threads refers to the root width of the threads and not the outer diameter of the threads. As to claim 12, none of the references shows expanding and compressing only below the cortical bone. Porter specifically teaches compressing the cortical bone. Claim 12 will be amended further to bring out this feature more clearly. The amendment will require further search and/or consideration when filed.

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**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1. (Currently amended) A method of expansion of bone tissue for receiving a dental implant comprising the steps of:

(a) creating a small initial osseotomy site in the maxilla or the mandible to a desired depth using a pilot drill at a predetermined implant location;

(b) providing multiple threaded expanders of substantially same structure with increasing diameters, each of said threaded expanders comprising: a top enabling engagement with a dental ratchet; a cylindrical shaft having an upper and a lower end, having depth markings along a longitudinal axis of said shaft; and a threaded expansion tip connected to said lower end of said cylindrical shaft; said threaded expansion tip of each of said multiple threaded expanders having a same length and a substantially same threaded structure to a threaded structure of said dental implant, yet a narrower outer diameter than an outer diameter of said dental implant;

~~(b)~~(c) screwing said threaded expansion tip of a first threaded expander into said osseotomy site, thereby expanding said osseotomy site laterally by pushing bone ~~issue~~ tissue away radially from a longitudinal axis of said osseotomy site;

~~(c)~~(d) allowing said threaded expansion tip of said first expander staying in said osseotomy site for a sufficient amount of time to impress an interior wall of said osseotomy site;

~~(d)~~(e) retrieving said first expander by screwing said threaded expansion tip of said first expander out in a reverse direction; and

(e)(g) repeating steps ~~(b) to (d)~~ (c) to (e) using a second threaded expander which has an increasing outer diameter and a substantially same threaded structure to

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said dental implant, starting by following a thread pattern created in steps ~~(b) to (d)~~ (c) to (e), to further expand said osseotomy site laterally to a final diameter which ~~is complementary to obtain an expanded osseotomy site that has a complementary geometry to said dental implant, but grooves and threads on an interior wall of said expanded osseotomy site are uniformly narrower than an outer diameters of complementary elements~~ of said dental implant so that said expanded osseotomy site enables said implant to sufficiently bite into and uniformly engage with surrounding bone ~~issues~~ tissues.

2. (Currently amended) The method of Claim 1 further comprising screwing said dental implant into said expanded osseotomy site after step ~~(e)~~ (g), starting by following said thread pattern created by said expanders.

3. (Currently amended) The method of Claim 1, wherein in step ~~(e)~~ (d) said sufficient amount of time is from about 10 seconds to about 2 minutes.

4. (Currently amended) The method of Claim 3, wherein in step ~~(e)~~ (g) said final diameter is from about 0.2 to about 0.5 mm narrower than said outer diameter of said dental implant.

5. (Currently amended) The method of Claim 4 further comprising an additional step of repeating step ~~(e)~~ (g) using a third threaded expander having an increasing outer diameter from said second expander to further expand said osseotomy site.

6-7. Canceled.

8. (Currently amended) The method of Claim 4, wherein said diameter of said ~~small~~ initial osseotomy site ~~has a diameter is~~ is in a range from about 1.5 mm to about 2.5 mm obtained using said pilot drill having a matching diameter.

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9. (Original) The method of Claim 8, wherein a first expansion achieved by said first expander expands said osseotomy site from about 0.2 to about 0.5 mm in diameter.

10. (Original) The method of Claim 9, wherein a second expansion, achieved by using said second expander expands said osseotomy site from about 0.6 mm to about 1.2 mm in diameter.

11. (Original) The method of Claim 1, wherein said screwing said expanders into said osseotomy site is performed using a ratchet.

12. (Currently amended) A method of expansion of bone tissue for receiving a dental implant comprising the steps of:

(a) creating a small initial osseotomy site in the maxilla or the mandible to a desired depth using a pilot drill at a predetermined implant location;

(b) drilling to extend said osseotomy site only at a cortical level to a diameter complementary to an outer diameter of said dental implant[[.]];

(c) screwing a threaded expansion tip of a first threaded expander into said osseotomy site, thereby expanding said osseotomy site laterally by pushing bone tissue away radially from a longitudinal axis of said osseotomy site;

(d) allowing said threaded expansion tip of said first expander staying in said osseotomy site for a sufficient amount of time to impress an interior wall of said osseotomy site;

(e) retrieving said threaded expansion tip of said first expander by screwing out in a reverse direction; and

(f) repeating steps (c) to (e) using a second threaded expander which has an increasing outer diameter and a substantially same threaded structure to a threaded structure of said dental implant, starting by following a thread pattern created in steps (b) to (d), to further expand said osseotomy site laterally to a final diameter

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~~which is complementary to obtain an expanded osseotomy site that has a~~  
complementary geometry to said dental implant, but narrower than an said outer  
diameter of said dental implant so that said expanded osseotomy site enables said  
implant to sufficiently bite into and uniformly engage with surrounding bone issues.

13. (Currently amended) The method of Claim 12 further comprising  
~~screwing~~ placing said dental implant into said expanded osseotomy site after step (f),  
starting by inserting said dental implant through said cortical level of said osseotomy  
site and screwing into rest of said osseotomy site by following said thread pattern  
created by said expanders.

14. (Original) The method of Claim 12, wherein in step (d) said sufficient  
amount of time is from about 10 seconds to about 2 minutes.

15. (Original) The method of Claim 14, wherein in step (f) said final diameter is  
from about 0.2 to about 0.5 mm narrower than said outer diameter of said dental  
implant.

16. (Original) The method of Claim 15 further comprising an additional step of  
repeating step (f) using a third threaded expander having an increasing outer diameter  
from said second expander to further expand said osseotomy site laterally.

17. (Currently amended) The method of Claim 16, wherein ~~a threaded~~  
said threaded expansion tip of said first, second and third expanders has a  
same length.

18. Canceled.

19. (Currently amended) The method of Claim ~~48~~ 12, wherein each of said  
expanders has a substantially same threaded structure to said dental implant for



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preparing a complementary geometry of said osseotomy site for receiving said dental implant.

20. (Currently amended) The method of Claim ~~20~~ 12, wherein each expansion achieved by one of said expander expands said osseotomy site from about 0.6 mm to about 1.5 mm in diameter.

21. (Currently amended) A kit of bone expanders for expanding bone for receiving a dental implant, comprising a plurality of threaded expanders of substantially same structure with increasing diameters, ~~wherein~~ each of said expanders comprising:

- (a) a top enabling engagement with a dental ratchet,
- (b) a cylindrical shaft having a upper and a lower end, having depth markings along a longitudinal axis of said shaft,
- (c) a transition between said upper end of said cylindrical shaft and said top, and
- (d) a threaded expansion tip connected to said lower end of said cylindrical shaft, said tip having a substantially same threaded structure of ~~to a threaded structure of~~ said dental implant, but a narrower outer diameter than an outer diameter of said dental implant,

wherein said threaded expansion tip of each of said plurality of expanders has a same length.

22. Canceled.

23. (Original) The kit of bone expanders of Claim 22, wherein said threaded expansion tip is tapered.

24. (Original) The kit of bone expanders of Claim 22, wherein said threaded expansion tip is straight.